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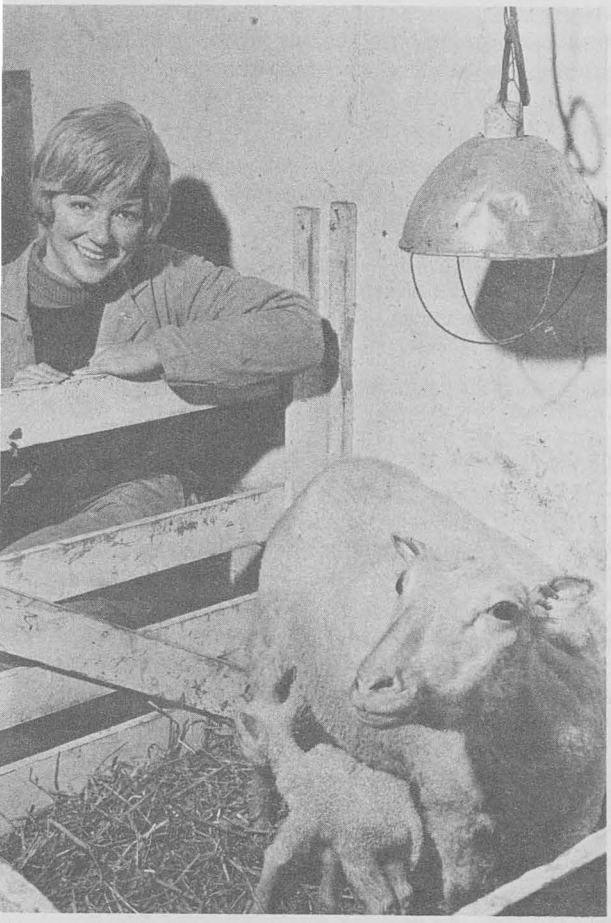
Young Lamb Nutrition And Management

Robert M. Jordan



Finn-crossed ewes often have more lambs than they can suckle. A milk replacer feeding program will turn this small baby into money. This publication answers many of the questions commonly asked about proper nutrition for young lambs.

A well-lighted and bedded area close to the ewes and clean, palatable, high-grain rations are the major components of a successful creep-feeding program. Don't deny a February-born lamb a chance to reach market weight by June. Creep-feeding is a must!

Agricultural Extension Service

University of Minnesota

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—By Robert M. Jordan, extension animal scientist

Lamb death loss, weight gains, and profits are nearly always related to nutrition. What good is a 200 percent lamb crop if half of them starve to death? What good is a 200 percent lamb crop if average weight per lamb is 50 or 60 pounds?

The dominant factor governing weight gain is nutrient intake. Let's consider how we should feed and manage a day-old lamb and a 6- to 8-week-old lamb.

THE DAY-OLD LAMB

If the ewe claims all her lambs, if the ewe produces adequate milk, and if the lambs nurse the ewe, you'll have few problems. But if the lambs don't receive adequate milk, they'll die. About one out of every seven lambs starves to death.

To avoid starvation losses, raise "bummed" (orphaned) lambs with milk replacer. You can save over half the lambs that would otherwise die between birth and 4 weeks. It's important to save those lambs. When a lamb is born, you have already invested 50-60 percent of the total cost (ewe feed) of producing a 100-pound market lamb.

How do you do it?

Recognize beforehand that some lambs will normally starve to death, but you can save the majority of these by feeding artificial milk.

Plan ahead. Prepare a separate pen for "bum" lambs. You'll need bottles and nipples, a supply of milk replacer, and a milk mixing scheme. Most important is your desire to save as many lambs as you can. You must be willing to work for the extra money.

Method to be used

*Lambs should receive colostrum, either from their mothers, from other ewes, or from a cow.

*In the case of triplets or twins born to a ewe having inadequate milk, decide within 24 hours which lamb(s) you're going to remove from the ewe and then move it (them) to a separate place (where the ewe can't hear the lamb(s)). It's easier to get a 12-hour lamb started nursing than to start one 48 hours old.

*Don't feed the lambs for 4 to 6 hours so they'll be hungry.

*Use one of the good commercial milk replacers that contains about 25 percent fat and 25 percent protein. The amount of milk replacer to water should be about 1:4 or 1 pound of milk replacer to 2 quarts of water. To prevent spoiling, add 1 cubic centimeter of formalin (available at any drug store) per 1 gallon of liquid milk. Use warm water, and mix thoroughly. Feed lambs warm milk replacer the 1st 1 to 2 days.

*After 4 to 6 hours without feed, put lambs to the nipple and hold the lambs there until they suckle readily. During this first feeding, you'll have to put each lamb back on the nipple two or three times.

*If the lambs look gaunt, put them to the nipple again the second and third feedings. Normally by the fourth or fifth feeding, 90 percent of the lambs will suckle from the nipple. Allow one nipple for each 2 to 4 lambs. Don't put more than 10 lambs into a pen. Lambs within a pen should be of about equal age and size.

*Provide cool milk constantly. Each lamb will consume about 1-1½ quarts of liquid milk per day.

*If muscular dystrophy is a problem, inject the lambs with selenium and vitamin E (available from your veterinarian). To treat enterotoxemia, vaccinate with a toxoid at 3 weeks of age and again at 5 weeks.

*Provide water and a palatable creep feed after the 2nd week.

*During the 4th week, reduce the amount of milk offered by changing the dilution from 1 to 4 to 1 to 6 or 7, or increase the number of available nipples and offer the milk for shorter periods of time. This reduction in milk intake will encourage creep feed intake.

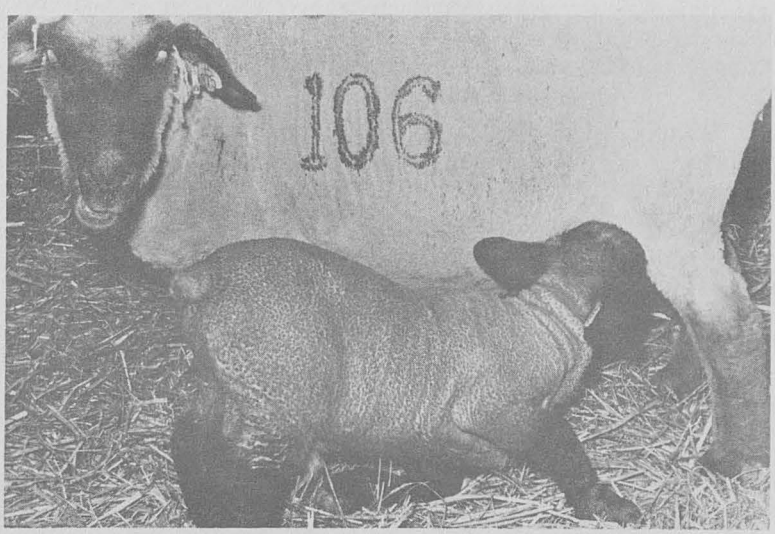
*Discontinue all liquid milk feeding after 4 to 5 weeks, but continue the creep ration and provide limited hay.

What you may expect

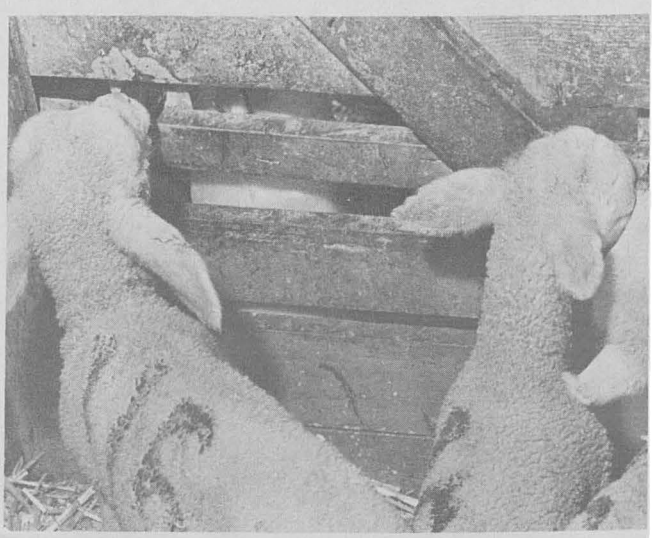
*Each lamb will consume .5 to .7 pound of dry milk replacer daily or about 15-20 pounds during the 4-week period. This will cost $6-8, depending upon consumption and price.

*Labor expended should not exceed .5 to 1 hour per lamb during this 4- to 5-week period.

One healthy lamb is good, but two or three mean much more profit.



Self-priming nipples help teach lambs to consume milk replacer. An area 4 x 4 feet will accommodate 8 to 10 lambs.



*Lamb weight at 30 days will be 25 to 30 pounds. Lambs will gain about as fast on this milk replacer as they would suckling their mothers.

*If you feed as instructed and keep utensils clean, you should have a small death loss (5-10 percent)—less than when lambs suckle their dams.

*When you stop feeding liquid milk, nutrient intake and weight gains will decline. It's difficult to maintain feed intake when you switch lambs from a highly digestible liquid diet to a grain diet. However from birth until market at 140 or 150 days, lambs will average .4 to .5 lb. per lamb daily and will produce 1 pound of lamb gain with about 4 pounds of feed.

Problems

*Some lambs will tend to suck each other's scrotums and navels. There is nothing you can do to break the habit.

*Low intake of creep feed after liquid milk is removed is a serious problem. To lessen this problem, continue the lambs on limited amounts of liquid milk until they are 5 to 6 weeks of age and increase their creep intake during that period.

*Finish these lambs in a dry lot. Do not turn them onto pasture. Such lambs seem particularly susceptible to internal parasites.

THE 6- TO 8-WEEK-OLD LAMB

Lambs of this age may still be suckling their mothers, or they may have already been weaned. For maximum gains, both weaned and unweaned lambs need added energy over and above what milk provides. In addition, the lambs weaned at 6 to 8 weeks of age need a relatively high-protein diet. Conversely, the amount or quality of the protein fed to creep lambs does not seem to be important.

Research involving hundreds of 4- to 8-week-old lambs that were either suckling their mothers or that had been weaned prompts these conclusions:

*Creep-feeding suckling lambs or grain-feeding early weaned lambs—whether in dry lot or on good pasture—significantly increases weight gains by 20 to 30 percent. Whether grain-feeding will result in the most profit depends on the quality of the pasture and the marketing target date. Normally, lambs sold in June or July bring enough more per pound to pay handsomely for the grain.

An excellent creep ration is: high in energy; highly palatable; relatively inexpensive; simple to formulate and mix (table 2). Most important is the amount consumed of a nutritious ration.

Corn vs. oats

Palatability is important. Lambs prefer what they are used to. If they are started on an oat creep feed, they will prefer oats to corn, and vice versa. If initially fed mixed corn-oats rations, the lambs show little preference for either. However over the long haul, corn has proven to be more palatable, has less fiber, is higher in energy, and normally results in significantly faster gains than do rations composed largely of oats. Therefore, corn is the better choice.

Concentrate to forage ratio

Young lambs need energy. Creep rations containing 80-90 percent grain result in higher intakes of energy and protein

Table 1. Palatability of feeds for suckling lambs (Illinois)

	Feed consumed by 2-week periods (pounds)				
Period	1	2	3	4	5
Feeds					
Oat groats	0	.05	.88	1.02	1.43
Whole oats	.12	.29	1.46	1.65	1.25
Grain corn	.11	.30	2.77	7.83	8.02
Alfalfa hay	.23	.41	1.43	1.12	1.05
Alfalfa pellets	0	.14	1.35	4.06	1.98
Wheat bran	.27	.55	2.01	3.17	1.08
Soybean meal	.81	1.70	6.94	11.01	10.63
Linseed meal	.03	.12	.72	1.06	.65
Linseed pellets	0	.02	.65	2.62	3.51
Sweet pellets	.27	.75	3.54	4.08	2.19

Table 2. Some excellent creep rations

	Unpelleted		Pelleted	
	1st 2 months	2 months to market	1st 2 months	2 months to market
	Percent			
Ground corn	40	60	40	50
Ground oats	20	20	15	–
Soybean meal	20	10	20	10
Alfalfa hay	–	–	10	35
Bran	20	10	10	10
Molasses	–	–	5	5
Trace mineral salt	.5	.5	.5	.5
Limestone	1.0	1.0	1.0	1.0
Antibiotic, mg/lb	50	20	50	15
Vitamins A, IU/lb	1000	1000	1000	1000
D, IU/lb	200	200	200	200

Table 3. Some simple grain mixes

	Unpelleted		Pelleted	
	1st 2 months	2 months to market	1st 2 months	2 months to market
	Percent			
Ground corn	49	89	64	59
Crushed oats	30	–	–	–
Soybean meal	20	10	20	10
Limestone	1.0	1.0	1.0	1.0
Trace mineral salt	.5	.5	.5	.5
Alfalfa	–	–	10	25
Molasses	–	–	5	5

Pneumonia is second to starvation as a killer of lambs. However, prompt attention with antibiotics will save a surprisingly large number of lambs suffering from pneumonia and other bacteria-related illnesses.

and are normally higher in digestibility than are rations containing 40-50 percent forage.

Ration preparation (grinding, pelleting)

Fine-grinding a creep ration reduces palatability. The feed becomes dusty, and the lambs eat less. Roll or grind it very coarsely for lambs less than 1 month old. Advantages of pelleting a creep ration depends upon two things: (1) what feeding system is used; and (2) what percentage forage it contains. If a creep ration is self-fed and little pains are taken to provide clean, fresh feed, then a pelleted creep ration normally will result in greater intake than would a meal ration. However if the feed is fresh, lambs usually do not show a significant preference for a pelleted ration the 1st month to 6 weeks of age. However as they become older, they prefer a pelleted ration. In a study involving several hundred lambs, a pelleted ration containing only 5 percent forage did not increase feed intake or rate of gain. Conversely, pelleting and self-feeding a ration with about 25 percent forage significantly increased feed intake and weight gains. A more recent study reinforces the earlier findings. As lambs become older, their preference for pelleting increases.

Protein quality and quantity

For suckling lambs, quality or quantity of protein has a small bearing on rate of gain. In studies involving several hundred lambs, quality of protein—as provided by soybean meal, dehydrated alfalfa, or fish meal—did not increase gains. Actually, lambs fed high-energy rations containing urea or no added nitrogen source gained as well as did those fed soybean meal.

Conversely, urea seemed to reduce feed intake (less palatability) and resulted in less weight gains among lambs weaned at 4 to 6 weeks of age. Lambs weaned at 4 to 5 weeks of age require 15 percent protein or a ration that results in consumption of 80-100 grams of protein per lamb each day.

How much soybean meal (44 percent) is required?

Using corn and oats as the basic grains, addition of 10 percent soybean meal will result in a grain ration containing 13 percent protein; addition of 15 percent soybean meal results in a ration containing 15 percent protein; and addition of 20 percent soybean meal to a corn-oats ration results in about 17 percent protein. Fifteen percent added soybean meal is usually adequate.

Molasses

Lambs have a sweet tooth, but no as great as many sheepmen believe. Admittedly, molasses cuts the dust, may increase pellet firmness, reduces pellet crumbling, and, therefore, increases feed intake. This increased feed intake becomes more evident as the lambs grow older. In recent studies, the combination of molasses and pelleting increased feed intake about 15 percent after lambs were 4 to 5 weeks of age. However, the increase in rate of gain was not significant. Therefore, sheepmen should not pay a big premium for either pelletizing the creep ration or adding molasses.

Antibiotics

Under conditions of stress, the antibiotics Aureomycin and Terramycin, together with some others, have increased rate of gain somewhat and have reduced death loss from enterotoxemia. The usual level added to the ration provides each lamb with 30-40 milligrams of antibiotic each day. It's as follows: during the 1st month, add 100 milligrams per pound of creep feed; the 2nd month, add about 30 milligrams, and from the 3rd month on, add about 10 to 20 milligrams per pound of creep ration.

If you lamb in January or February, don't waste that marketing advantage by failing to provide supplemental energy and protein to the young lambs. A well-lighted and well-bedded creep constructed adjacent to where the ewes rest will encourage creep intake and will encourage lambs to spend time in the creep area.

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